

Appl. No. 10/748,735
Amendment dated November 2, 2007
Reply to Restriction Requirement of October 4, 2007

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

What is claimed is:

1. (Original) A signal generation power management control system for use in a portable communications device comprising:

a digital signal processor (DSP) for processing a digital source input

and providing a digital processed bit stream;

a digital-to-analog converter (DAC) for converting the digital processed bit stream and providing at least one analog signal; and

a power management controller within the DSP for interpreting a plurality of control parameters and dynamically adjusting a bias current used by the DAC based on minimal signal requirements of the at least one analog signal.

2. (Original) A signal generation power management control system as in claim 1, wherein the control parameters include a digital multiple access protocol (MA), noise requirements, intermodulation distortion (IMD) requirements and reference capacitance requirements for a predetermined slew rate.

Appl. No. 10/743,735
Amendment dated November 2, 2007
Reply to Restriction Requirement of October 4, 2007

3. (Original) A signal generation power management control system as in

claim 1, further comprising:

at least one DAC filter for adjusting the at least one analog signal to a desired frequency response.

4. (Original) A signal generation power management control system as in claim 3, further comprising:

a mixer for providing an intermediate frequency (IF) signal from the at least one analog signal; and

a power amplifier for amplifying the IF signal from the mixer.

5. (Original) A signal generation power management control system as in claim 4, wherein the bias current of the DAC filter, mixer and power amplifier can be dynamically controlled by the power management controller in order to minimize current drain of a portable communications device.

6. (Original) A signal generation power management control system as in claim 4, wherein the IF signal operates at radio frequency (RF).

Appl. No. 10/748,735
Amendment dated November 2, 2007
Reply to Restriction Requirement of October 4, 2007

7 – 15 (Withdrawn)

16. (New) A signal generation power management control system of claim 4, wherein the power management controller is further for adjusting control parameters of the DAC, the at least one DAC filter, the mixer and the power amplifier based upon digital protocol received by the DSP and analog signal requirements for the portable communications device.

17: (New) A signal generation power management control system of claim 4, wherein the power management controller dynamically adjusts the bias current used by the DAC based upon a digital multiple access protocol (MA), noise requirements, intermodulation distortion (IMD) requirements of the portable communications device.